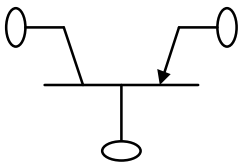
SERTECH LABS
A Microsemi Company
580 Pleasant St.
Watertown, MA 02172

Phone: 617-924-9280
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2N2907ADIE

DIE SPECIFICATION

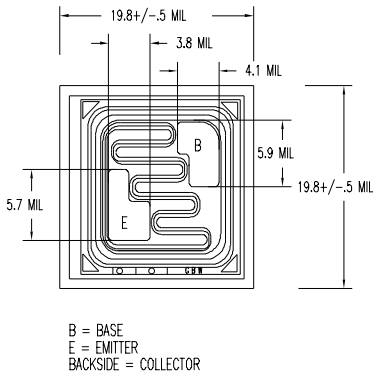
SWITCHING TRANSISTOR
PNP SILICON



FEATURES:

- ELECTRICAL PERFORMANCE I.A.W. MIL-PRF-19500/291
- AVAILABLE IN WAFER OR CHIP FORM FOR HYBRID APPLICATIONS
- GENERAL PURPOSE-HIGH SPEED SWITCHING APPLICATIONS
- LOW VCE(sat): .4V @ IC = 150 mAdc

PHYSICAL DIMENSIONS



Absolute Maximum Ratings:

Symbol	Parameter	Limit	Unit
Vceo	Collector-Emitter Voltage	60	Vdc
Vcbo	Collector-Base Voltage	60	Vdc
Vebo	Emitter-Base Voltage	5.0	Vdc
Ic	Collector Current- Continuous	600	mAdc
Tj, Tstg	Operating Junction & Storage Temperature Range	-65 to +200	°C

Packaging Options:
W: Wafer (100% probed) U: Wafer (sample probed)
D: Chip (Waffle Pack) B: Chip (Vial)
V: Chip (Waffle Pack, 100% visually inspected) X: Other

Processing Options:
Standard: Capable of JANTXV applications (No Suffix)
Suffix C: Commercial
Suffix S: Capable of S-Level equivalent applications

Metallization Options:

Standard: Al Top / Au Backside (No Dash #)
Dash 1: Al Top / TiPdAg Backside

ORDERING INFORMATION:
PART #: 2N2907A_ _ - _
First Suffix Letter: Packaging Option
Second Suffix Letter: Processing Option
Dash #: Metallization Option

Sertech reserves the right to make changes to any product design, specification, or other information at any time without prior notice.

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Electrical Characteristics @ Tj = 25 °C

Symbol	Parameter	Conditions	Min	Max	Unit
OFF CHARACTERISTICS					
V(BR)CBO	Breakdown Voltage, Collector to Base	Bias Cond. D, IC=10uAdc	60		Vdc
V(BR)EBO	Breakdown Voltage, Emitter to Base	Bias Cond. D, IE=10uAdc	5		Vdc
V(BR)CEO	Breakdown Voltage, Collector to Emitter	Bias Cond. D, IC= 10mAdc, pulsed	60		Vdc
ICES	Collector to Emitter Cutoff Current	Bias Cond. D, VCE=50Vdc		50	nAdc
ICBO1	Collector to Base Cutoff Current	Bias Cond. D, VCB=50Vdc		10	nAdc
IEBO	Emitter to Base Cutoff Current	Bias Cond. D, VEB= 4Vdc		50	nAdc
ON CHARACTERISTICS					
hFE1	Forward-Current Transfer Ratio	VCE=10Vdc, IC=0.1mAdc	75		
hFE2	Forward-Current Transfer Ratio	VCE=10Vdc, IC=1.0mAdc	100	450	
hFE3	Forward-Current Transfer Ratio	VCE=10Vdc, IC=10mAdc	100		
hFE4	Forward-Current Transfer Ratio	VCE=10Vdc, IC=150mAdc, pulsed	100	300	
hFE5	Forward-Current Transfer Ratio	VCE=10Vdc, IC=500mAdc, pulsed	50		
VCE(sat)1	Collector to Emitter Saturation Voltage	IC=150mAdc, IB=15mAdc, pulsed		0.4	Vdc
VCE(sat)2	Collector to Emitter Saturation Voltage	IC=500mAdc, IB=50mAdc, pulsed		1.6	Vdc
VBE(sat)1	Base to Emitter Saturation Voltage	IC=150mAdc, IB=15mAdc, pulsed	0.6	1.3	Vdc
VBE(sat)2	Base to Emitter Saturation Voltage	IC=500mAdc, IB=50mAdc, pulsed		2.6	Vdc
SMALL SIGNAL CHARACTERISTICS					
hfe	Short Circuit Forward Current Xfer Ratio	VCE= 10Vdc,IC =1mAdc, f= 1kHz	100		
/hfe/	Magnitude of Short Circuit Forward Current Transfer Ratio	VCE= 20Vdc,IC =50mAdc, f=100MHz	2		
Cobo	Output Capacitance	VCB= 10Vdc, IE =0, 100kHz< f <1MHz		8	pF
Cibo	Input Capacitance	VEB= 2.0Vdc, IC=0, 100kHz< f <1MHz		30	pF
SWITCHING CHARACTERISTICS					
ton	Saturated Turn-on Time	As defined in 19500/291 Figure 7		45	nS
toff	Saturated Turn-off Time	As defined in 19500/291 Figure 8		300	nS

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